

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Former Nextel Communications, Inc.)	WT Docket No. 06-169
Upper 700 MHz Guard Band)	
Licenses and Revisions to Part 27 of)	
the Commission's Rules)	
)	
Development of Operational,)	WT Docket No. 96-86
Technical and Spectrum)	
Requirements for Meeting Federal,)	
State and Local Public Safety)	
Communications Requirements)	
Through the Year 2010)	

**REPLY COMMENTS OF ACCESS SPECTRUM, LLC AND
PEGASUS COMMUNICATIONS CORPORATION**

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I. INTRODUCTION AND SUMMARY

The Commission has a unique opportunity to improve and optimize the Upper 700 MHz band by acting on the three 700 MHz Notices initiated under Chairman Martin's leadership.¹ As Commissioner McDowell recently noted, the 700 MHz band, due to the band's favorable propagation characteristics as well as the high expectations for the auction, holds great promise

¹ *The Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010*, Eighth Notice of Proposed Rulemaking, 21 FCC Rcd 3668 (2006) (FCC 06-34) ("Public Safety 700 MHz Broadband proceeding" or "Public Safety 700 MHz Broadband 8th NPRM"); *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, Notice of Proposed Rulemaking, Fourth Further Notice of Proposed Rulemaking, and Second Further Notice of Proposed Rulemaking, 21 FCC Rcd 9345 (2006) (FCC 06-114) ("Commercial 700 MHz proceeding"); *Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules; Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010*, Notice of Proposed Rulemaking, 21 FCC Rcd 10413 (2006) (FCC 06-133) ("Notice").

for “technological innovation and increased access to broadband services by American consumers, businesses and public safety agencies” and for public/private partnerships that will help public safety agencies “fulfill their critical role in securing the homeland.”² The plan proposed by Access Spectrum, LLC (“Access Spectrum”) and Pegasus Communications Corporation (“Pegasus”) is the only plan that meets these goals by:

- Optimizing the band plan and auction rules to enable a 4G auction;
- Reconfiguring the public safety allocation to permit the public safety community (“Public Safety”) to take advantage of the full panoply of broadband technologies;
- Harmonizing the commercial and public safety allocations to encourage public/private partnerships, as well as providing considerable incentive to the commercial auction winners, in the form of a bidding preference, to establish such partnerships; and
- Conferring a benefit in the form of free access to infrastructure, which we estimate to be worth more than \$6 billion to Public Safety.³

Further, all of this can be accomplished in a timely fashion pursuant to the Commission’s existing authority, with rules “aimed at enabling the broadest possible use of this spectrum and permitting deployment of a wide range of advanced wireless services.”⁴ In order to achieve the full benefits of this plan, the Commission must act promptly and simultaneously on the three pending Notices of Proposed Rulemaking, so that the planned 700 MHz auction moves forward

² Remarks of FCC Commissioner Robert M. McDowell, 3G Americas Technology Briefing, Washington, D.C., at 4-5 (Oct. 18, 2006), *available at*: <http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-268012A1.doc> (“McDowell Speech”).

³ Declaration of Dr. Stagg Newman (Sept. 29, 2006) at 1, provided as an attachment to Comments of Access Spectrum, LLC, Columbia Capital III, LLC, Pegasus Communications Corporation, and Telcom Ventures, LLC, WT Docket No. 06-150 (Sept. 29, 2006), filed in this proceeding by letter from Kenneth R. Boley, Lawler, Metzger, Milkman & Keeney, LLC, to Marlene H. Dortch, FCC Secretary, WT Docket Nos. 06-169 and 96-86 (Oct. 10, 2006).

⁴ McDowell Speech at 5.

on schedule with a structure that optimizes the benefits for both commercial operators and Public Safety.

Public Safety, including NPSTC, APCO, and Region 24 700 MHz Regional Planning Committee (Missouri),⁵ has filed comments indicating continued interest in the Broadband Optimization Plan (“BOP”).⁶ Further, Motorola supports a slightly modified version of the BOP.⁷ Public Safety has been clear that its interest in pursuing the BOP is contingent upon the resolution of issues relating to the consolidation of public safety narrowband channels under the BOP.⁸ In comments filed concurrently with the comments of public safety entities, Access Spectrum and Pegasus have explained how the issues associated with implementation of the BOP will be resolved, thereby addressing the contingencies.

The sole remaining task before the BOP can be adopted is the finalization of the technical rules addressing interference. Motorola states that “the Commission must place the highest priority on ensuring interference protection to the 700 MHz public safety operations and maintaining the usefulness of the commercial portions of the band.”⁹ We wholeheartedly agree with Motorola on both parts of this statement and respectfully suggest that a third objective of the technical rules should be the facilitation of public-private partnerships. Further, we very much understand and appreciate the concerns of NPSTC and others in Public Safety regarding

⁵ Comments of the National Public Safety Telecommunications Council at 1-2 (“NPSTC Comments”); Comments of APCO International at 2-4 (“APCO Comments”); Comments of the Region 24 (Missouri) Regional Planning Committee at 3. (Unless otherwise indicated, all Comments cited herein were filed in WT Docket No. 06-169 on October 23, 2006.)

⁶ Notice ¶¶ 42-48.

⁷ Letter from Steve B. Sharkey, Director, Spectrum and Standards Strategy, Motorola Inc. to Marlene H. Dortch, FCC Secretary, WT Docket Nos. 96-86, 06-150, and 06-169, Attachment at 6 (Oct. 4, 2006).

⁸ NPSTC Comments at 7; APCO Comments at 4.

⁹ Comments of Motorola, Inc. at i (“Motorola Comments”).

the need to protect public safety operations from undue interference and fully intend to work toward technical rules that achieve the requisite level of protection.

These reply comments address the required technical rules. We demonstrate that under the BOP, public safety narrowband and wideband operations will receive protection from undue interference caused by commercial operations that is equivalent or superior to that afforded by the current rules. In addition, the 700 MHz Technical Working Group (“TWG”)¹⁰ has already begun to address the development of technical rules to govern the interface between public safety broadband operations and the adjacent commercial broadband operations. These technical rules will protect public safety operations, enable 4G technologies in the Upper 700 MHz commercial spectrum, and foster the creation of public-private partnerships.

We expect this effort to conclude in a timely fashion to permit the Commission to issue rulings for the Upper 700 MHz band and proceed with a timely auction. In a matter of only a few months, with tremendous support from Public Safety, Motorola, M/A-COM, and the State of New York, we have addressed all of the challenging implementation issues related to relocation of the public safety narrowband channels under the BOP.¹¹ We look forward to working with the TWG and other commercial entities in the immediate future to formulate recommendations on technical rules to govern the broadband/broadband interface that are advantageous to both public safety and commercial interests. The current trio of proceedings addressing the Upper

¹⁰ TWG meetings have been regularly attended by representatives from NPSTC, the State of New York, Motorola, M/A-COM, Pegasus, and Access Spectrum, and representatives from APCO, IACP and IAFC have been kept abreast of the TWG’s progress. The first Report of the 700 MHz Technical Working Group was transmitted via letter from Ruth Milkman, Counsel for Access Spectrum, LLC and Kathleen Wallman, Adviser to Pegasus Communications Corp., WT Docket Nos. 06-169 and 96-86 (Oct. 23, 2006) (“Report of the 700 MHz Technical Working Group”).

¹¹ Report of the 700 MHz Technical Working Group at 1-2; *Notice* ¶ 5 (describing issues of concern to Public Safety).

700 MHz band presents a unique opportunity to provide an additional 3 MHz of broadband spectrum to each of the public safety and commercial allocations in the highly valuable 700 MHz band and to foster mutually beneficial public/private partnerships. By focusing on these issues now, the Commission and the interested parties can improve and optimize the 700 MHz band for the next several decades.

Finally, we address briefly a few new issues raised in comments by various parties. In response to a question raised by CTIA, we explain that current rules address interference issues regarding the interface at 746 MHz between the Upper 700 MHz band and the Lower 700 MHz band as it would exist under the BOP. We show that an alternative band plan proposed by Ericsson is sub-optimal for both Public Safety and commercial operators and rests on an unsubstantiated technical assumption that is inconsistent with the current record. In response to a question raised by the Critical Infrastructure Communications Coalition (“CICC”), we explain how the BOP is consistent with the current statute. And lastly, we offer a proposal to resolve a concern regarding the BOP raised by Radiofone, a current B Block licensee.

II. DISCUSSION

A. Interference Issues

Resolution of issues involving potential interference will be central to the implementation of the BOP. Motorola highlights this point in the first paragraph of its comments:

Motorola supports certain modifications to the Upper 700 MHz band plan to facilitate enhanced use of both the 700 MHz public safety allocation as well as the 700 MHz guard bands. In doing so, the Commission must place the highest priority on ensuring interference protection to the 700 MHz public safety operations and maintaining the usefulness of the commercial portions of the band.¹²

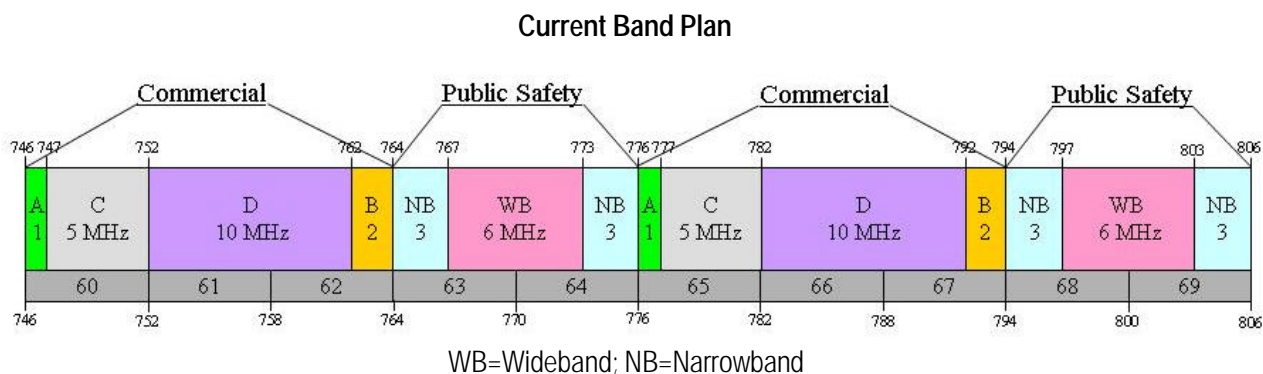
¹² Motorola Comments at i.

Access Spectrum and Pegasus wholeheartedly agree with Motorola's statement, and respectfully suggest that a third objective of the technical rules should be the facilitation of public-private partnerships. We present the following analysis to define these interference issues and explain how they will be addressed.

1. The Current Band Plan

As an initial matter, there appears to be some confusion among some of the commenters over the role of guard bands under the BOP.¹³ To avoid any potential confusion, we begin by describing the role of guard bands in the current band plan and then explain how the BOP would at the very least preserve, and likely enhance, the protection afforded to public safety narrowband operations that the guard bands were designed to protect.

The current band plan includes the A and B Blocks as guard bands at the edges of public safety spectrum.



Under the current rules, the channels at both ends of the public safety blocks are designated for public safety narrowband operations, and the non-guard band commercial spectrum (the C and D Blocks) is authorized for full cellular broadband operations. Thus, the guard bands are used to separate public safety narrowband from commercial broadband operations. Under the current

¹³ See Comments of Verizon Wireless at 6-7 (expressing concern that allowing guard bands to be put to flexible use would “effectively eliminate that buffer”).

band plan, there is no need for guard bands to protect public safety narrowband from public safety broadband operations, because the current rules do not allow for broadband operations in the public safety spectrum. However, as the FCC considers how to optimize the public safety allocation for broadband operations, it is of paramount importance that the rules adequately protect all public safety operations, whether narrowband, wideband or broadband, and at the same time maximize the utility of the entire Upper 700 MHz band.

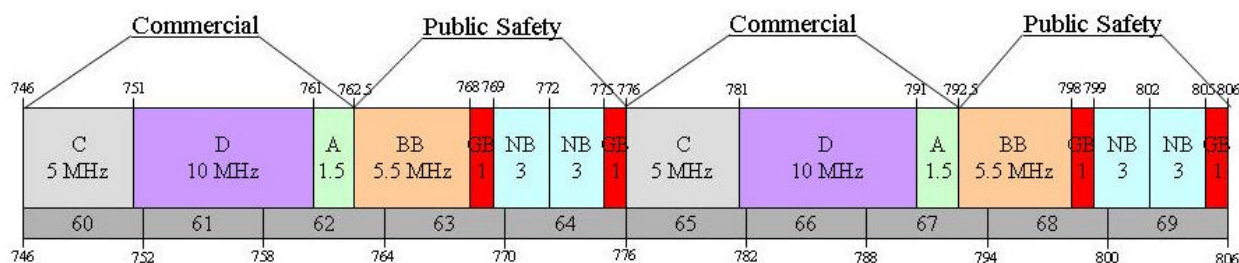
2. Interface Between Public Safety Narrowband and Commercial Broadband

Contrary to the suggestion that the BOP would eliminate necessary guard bands,¹⁴ guard bands would still be used to protect public safety narrowband operations, and the guard bands would still exist adjacent to public safety narrowband, but the locations of those guard bands would be different from the current band plan because the location of public safety narrowband would be different. As illustrated above, the current band plan contemplates 3 MHz of public safety narrowband operations at the upper end of the public safety allocation, separated from commercial broadband operations by a 1 MHz-wide guard band at 776 MHz to 777 MHz. Under the current band plan, this guard band is the commercial A Block.

The BOP also contemplates public safety narrowband operations at the upper end of the public safety allocation, separated from commercial broadband operations by a 1 MHz-wide guard band. However, unlike the current plan, the BOP places that 1 MHz guard band at 775 MHz to 776 MHz, *within* the public safety allocation.

¹⁴ See *id.*

Broadband Optimization Plan ("BOP")



BB=Broadband; WB=Wideband; NB=Narrowband; GB=Guard Band

Thus, the BOP would retain a full 1 MHz guard band at the interface between public safety narrowband and commercial broadband operations. At a minimum, the current level of protection of the public safety narrowband allocation is therefore preserved.

Granting Public Safety control of its own guard band in lieu of a commercial one is preferable for Public Safety because it would allow public safety entities to control the level of activity within the guard bands, rather than relying on commercial licensees subject to Commission rules. As noted by the Region 24 (Missouri) 700 MHz Regional Planning Commission, "Regional planning committees aware of use within their own regions can meter control of this internal guard band to meet the degree of protection deemed appropriate as conditions arise."¹⁵

While it would help Public Safety, moving the guard band inside public safety spectrum would have no effect on the Upper 700 MHz C and D Blocks. The emissions limits, power requirements and architecture restrictions that apply to the 776-777 MHz guard band under the current rules would continue to apply to the guard band at 775-776 MHz under the BOP,

¹⁵ Comments of the Region 24 (Missouri) 700 MHz Regional Planning Commission, WT Docket No. 96-86, at 7 (June 6, 2006) ("Region 24 June 6 Comments").

including the provisions that describe the amount of interference guard band operations must accept from commercial operations.¹⁶

Thus, the public safety internal guard band at 775-776 MHz contemplated in the BOP would provide at least the same level of protection to public safety narrowband operations as does the current 1 MHz commercial guard band at 776-777 MHz and would have no effect on the C and D Blocks. In their proposals in the *Public Safety 700 MHz Broadband* proceeding, both NPSTC and Motorola found that a guard band of 1 MHz was sufficient to protect public safety narrowband operations from interference caused by public safety broadband operations.¹⁷ Furthermore, in adopting the current band plan, the Commission determined that the 1 MHz A Block, together with the associated technical rules, was a sufficient guard band to protect public safety narrowband operations from operations in the commercial C Block,¹⁸ in which cellular broadband systems are permitted. The BOP would maintain at least the same level of protection as required by these findings. It is unnecessary to revisit the size of the required guard band.

3. Public Safety Narrowband, Wideband and Broadband: The “Sliding” Guard Band

Under any plan that would consolidate public safety narrowband channels in the upper portion of the public safety block, the narrowband channels would be bordered at the bottom by public safety broadband or wideband operations. Under the BOP, Public Safety would determine whether and when a guard band is necessary to protect public safety

¹⁶ See 47 C.F.R. § 27.53(c). The Commission’s rules should make clear that within the internal public safety guard band at 775-776 MHz, Public Safety must accept interference from the C and D Block operators to the same extent as the current A Block licensees are required to accept interference.

¹⁷ *Public Safety 700 MHz Broadband 8th NPRM* ¶¶ 17-18.

¹⁸ *Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission’s Rules*, First Report and Order, 15 FCC Rcd 476, ¶ 34 (2000) (“*Upper 700 MHz First R&O*”).

narrowband/wideband from public safety broadband, and Public Safety would determine the amount of its spectrum to dedicate to that guard band.¹⁹ Broadband operations in the commercial spectrum at 762.5 MHz and 792.5 MHz would not risk causing undue interference to public safety narrowband operations because public safety narrowband would be separated from commercial operations by 6.5 MHz. Motorola has previously concluded in the *Public Safety 700 MHz Broadband* proceeding that an internal public safety guard band of approximately 1 MHz would be required to protect public safety wideband from undue interference from adjacent broadband operations.²⁰ Thus, the scenarios illustrated below assume an internal public safety guard band of 1 MHz separating public safety narrowband or wideband from adjacent broadband operations.

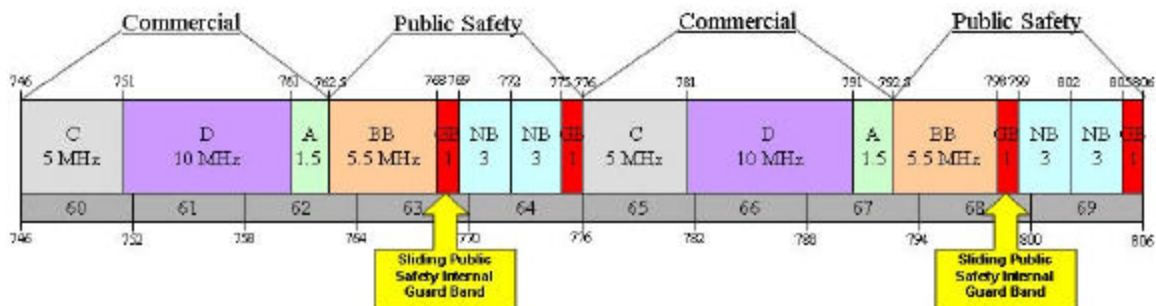
The BOP would provide Public Safety the flexibility to determine the location of any internal guard band separating public safety operations based on the amount of spectrum Public Safety chooses to use for wideband or broadband in a given region. This “sliding” guard band would enable Public Safety to accommodate regional variations and also to alter over time the

¹⁹ The original NPSTC proposal in the *Public Safety 700 MHz Broadband* proceeding would also use public safety spectrum for guard bands separating public safety narrowband/wideband from public safety broadband. However, because the original NPSTC plan would maintain the current narrowband configuration, there would be a total of four interfaces between public safety narrowband/wideband channels and public safety broadband channels. *Public Safety 700 MHz Broadband 8th NPRM* ¶ 18, Figure 4. Under the BOP, there would be only two such interfaces. Thus, if public safety deployed broadband systems, the original NPSTC proposal would require four guard bands between public safety narrowband/wideband and public safety broadband, while the BOP would require only two, wasting half as much spectrum.

²⁰ “700 MHz Wideband Interoperability,” attached to letter from Steve B. Sharkey, Motorola, Inc. to Marlene H. Dortch, FCC Secretary, WT Docket Nos. 96-86 and 05-157, at 30 (Oct. 27, 2005) (“Motorola Oct. 27 Presentation”) (“A guardband of approx. 1 MHz would also be needed between a 1.25 MHz BB channel and a wideband channel if they were not co-located”).

proportion of broadband to wideband deployed.²¹ If, for example, a given regional planning committee (“RPC”) elected to permit only deployment of broadband in the non-narrowband spectrum, a guard band could be located at 768-769/798-799 MHz, separating the public safety broadband and narrowband operations, as illustrated below:

BOP “Sliding” Guard Band, Scenario 1: Only Broadband Deployed in Non-Narrowband Spectrum



BB=Broadband; WB=Wideband; NB=Narrowband; GB=Guard Band

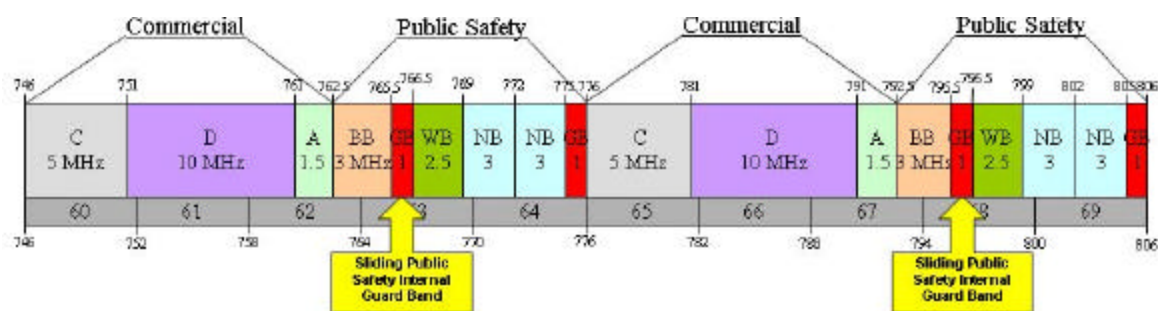
The simple fact of the consolidation of the narrowband channels also significantly improves the ability of the new narrowband receivers to reject emissions from neighboring broadband public safety operations. Under the current band plan, the two sets of public safety narrowband channels are separated by 6 MHz of non-narrowband spectrum. As a result, public safety narrowband receivers are typically designed with a wide front end that receives signals over the entire 12 MHz of spectrum, including the non-narrowband segment. By consolidating the public safety narrowband channels into a single paired block, the BOP would enable public safety narrowband receivers in the future to be tailored to the contiguous narrowband spectrum,

²¹ See Region 24 June 6 Comments at 10-11 (“Most importantly, as their data needs change, public safety will have the tools to be able to adapt to wider bandwidth technologies when necessary...”); see also NPSTC Comments at 5 (supporting providing local public safety agencies “the flexibility to respond to a region’s communications needs”).

greatly improving the receivers' ability to reject emissions from neighboring non-narrowband public safety operations.²²

If the RPC chose to permit deployment of both wideband and broadband in the non-narrowband spectrum, a “sliding” guard band could be located between the wideband and broadband channels, though its exact location would depend on the amount of broadband and wideband deployed. In the example illustrated below, the RPC has determined that 2.5 MHz of paired spectrum should be dedicated to wideband operations, leaving the remaining 3 MHz of paired non-narrowband spectrum for broadband. A “sliding” guard band in this case could be located at 765.5-766.5/795.5-796.5 MHz, separating the public safety broadband and wideband operations, as illustrated below. If the RPC wanted to permit deployment of more or less broadband, it could relocate the internal guard band accordingly to separate public safety wideband from public safety broadband operations.

BOP “Sliding” Guard Band, Scenario 2: Both Broadband and Wideband in Non-Narrowband Spectrum



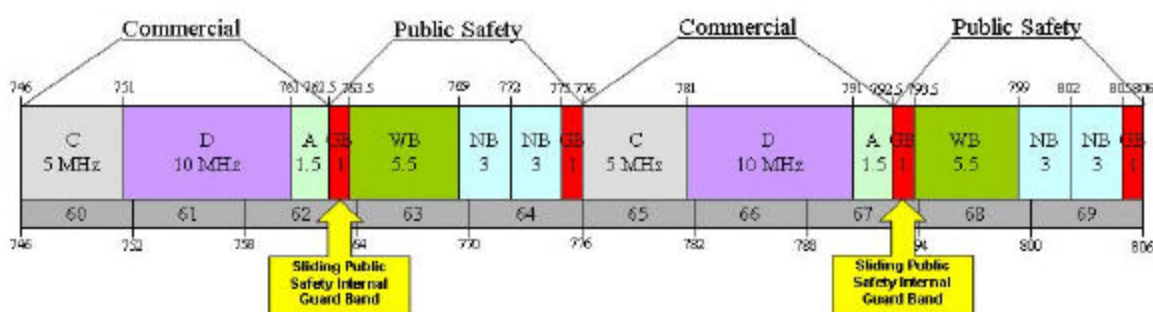
BB=Broadband; WB=Wideband; NB=Narrowband; GB=Guard Band

Finally, if the RPC elected to permit deployment only of wideband in the non-narrowband public safety spectrum, a “sliding” guard band could be located at the lower edge of the public safety allocation, at 762.5-763.5/792.5-793.5 MHz. Unlike the two scenarios above, however, the “sliding” guard band in this third scenario would not separate public safety

²² Under the BOP, existing receivers will continue to operate as they do currently.

operations from other public safety operations. Instead, it would separate public safety wideband operations from the adjacent commercial broadband operations in the A Block. The “sliding” guard band would still be in public safety spectrum under the control of Public Safety, and the adjacent commercial A Block would not be used or regulated as a guard band. Given Motorola’s determination that 1 MHz of spectrum is required between broadband and wideband operations, under the BOP, all commercial operators in the Upper 700 MHz band would be required to restrict emissions into the lowest 1 MHz of spectrum in each public safety block to the same extent that they are required to restrict emissions into commercial guard band spectrum under current rules. Thus, there is no need for any commercial guard band spectrum at the lower edge of the public safety allocation to protect public safety wideband operations.

BOP “Sliding” Guard Band, Scenario 3: Only Wideband Deployed in Non-Narrowband Spectrum



BB=Broadband; WB=Wideband; NB=Narrowband; GB=Guard Band

Finally, while the BOP provides flexibility to Public Safety to deploy wideband, broadband, or both, we believe that one set of technical rules can be developed for commercial providers to address potential interference into the non-narrowband portion of public safety spectrum. As discussed below, the TWG is working on formulating recommendations for these technical rules.

4. Public Safety Broadband and Commercial Broadband

Under the first two scenarios described previously, where at least some broadband is deployed in public safety spectrum, the BOP would locate public safety broadband operations directly adjacent to commercial broadband operations in the reconfigured A Block, with no intervening guard band.²³ Placing public safety broadband operations directly adjacent to commercial broadband operations increases the likelihood that public safety would benefit from reduced equipment costs driven by commercial economies of scale, as well as facilitates the creation of public-private partnerships. Further, the adoption of the BOP permits the adoption of the Access Spectrum/Pegasus Commercial 700 MHz Plan, which harmonizes the public safety and commercial allocations into 5.5 MHz building blocks, enables public safety networks to share commercial infrastructure and provides Public Safety priority access to commercial networks in emergency situations.²⁴

In order to realize the many benefits of this configuration, however, it is critical to develop rules for addressing potential interference between commercial broadband operations and public safety broadband operations.²⁵ Since shared-use networks work best on adjacent spectrum,²⁶ the rules also must ensure that commercial and public safety entities cooperate and

²³ The TWG has recommended that public safety operations at 762.5-764 MHz and 792.5-794 MHz be limited to broadband only. Report of the 700 MHz Technical Working Group at 11-13.

²⁴ See Comments of Access Spectrum, LLC, Columbia Capital III, LLC, Pegasus Communications Corporation, and Telcom Ventures, LLC, WT Docket No. 06-150 (Sept. 29, 2006) at 3-4, 35-43.

²⁵ See NPSTC Comments at 4 (reviewing proposals based upon “whether operations under the proposed revised guard band rules will protect public safety operations”).

²⁶ As we have explained previously, shared-use networks work best where the commercial spectrum is adjacent to the public safety spectrum, because such proximity eliminates the need to include additional filtering and other components in the shared-use radio system, and it improves the system’s spectral efficiency. Comments of Access Spectrum, L.L.C., Columbia Capital III,

share resources without the imposition of a guard band between them. Commercial broadband operations are likely to be low-site, low-power. In order to achieve the end user performance requirements specified by the Spectrum Coalition for Public Safety,²⁷ particularly the speed and capacity needed to support video transmission from an emergency site and the clustering of first responders in an emergency, and in order to take full advantage of the revolutionary applications made possible by broadband technology, public safety broadband operations likely will need to employ architectures similar to traditional commercial broadband operations. Public-private partnerships also will increase the likelihood that public safety broadband networks will employ traditional commercial broadband network architecture.²⁸ If so, the current technical rules for the Upper 700 MHz C and D Blocks would be adequate to address potential interference between public safety broadband and commercial broadband, as well as between commercial operations. However, public safety broadband operations, particularly in rural areas, may be high-site, high-power. The TWG, including representatives from NPSTC, Motorola and M/A-COM, has already begun work on formulating recommendations on how to address potential interference between commercial and public safety broadband operations in such a way as to ensure that: (1) public safety broadband operations are protected; (2) the adjacent commercial

LLC, Intel Corporation, and Pegasus Communications Corporation, WT Docket No. 96-86, at 12 (June 6, 2006) (“*BOP Comments*”).

²⁷ See “Public Safety Spectrum: How Much Do We Need for Data?” at 9-17, attached to letter from Bill Butler, Spectrum Coalition for Public Safety, to Marlene H. Dortch, FCC Secretary, WT Docket No. 05-157 (Oct. 27, 2005).

²⁸ Both the BOP and the Access Spectrum/Pegasus 700 MHz Commercial Plan are designed with features to encourage public-private partnerships. The commercial plan would harmonize commercial and public safety broadband spectrum block sizes and also provides an incentive in the form of a bidding preference for commercial operators to provide Public Safety priority access as well as access to infrastructure. Public-private partnerships that allow Public Safety to use commercial infrastructure for free would result in low-site, low-power public safety networks wherever the commercial networks are deployed.

licenses (the A Block in the case of the BOP) have technical rules equivalent to the rules for the remainder of the Upper 700 MHz commercial spectrum; and (3) public/private partnerships are enabled.

Based on the track record of the TWG to date, Access Spectrum and Pegasus are confident that the TWG will provide consensus recommendations enabling a prompt and fair resolution of any issues that might arise under the BOP with respect to potential interference between commercial broadband and Public Safety. As stated previously, the BOP holds tremendous benefit for Public Safety, for existing commercial licensees and for future commercial licensees for decades to come. We understand the need to work quickly to resolve these issues in a way that is satisfactory for all stakeholders; we have done so before and will do so again. To this end, should other parties to this proceeding such as Verizon Wireless, Ericsson, and CTIA determine to be helpful in this effort, we recognize that they have much to offer, and we would welcome the opportunity to work with them in addressing these issues through properly defined rules.

B. Other Issues

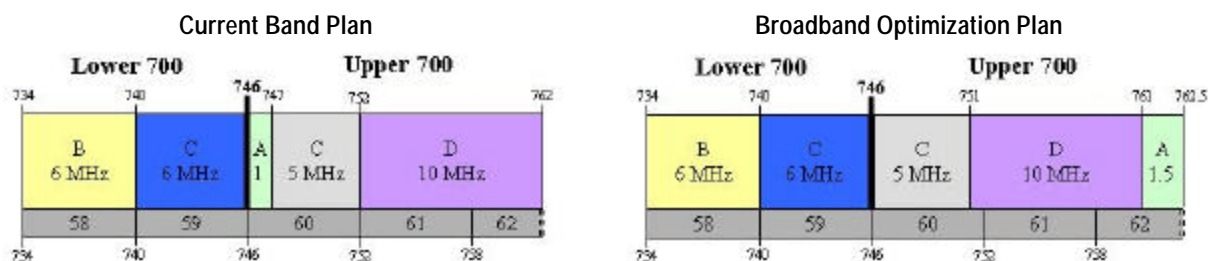
This section addresses specific issues raised in the comments, including the potential for interference between the Lower and Upper 700 MHz bands (CTIA); the need for 2 MHz guard bands (Ericsson); the Commission's authority to reallocate part of the B Block to Public Safety (CICC); and the treatment of the Gulf of Mexico B Block license (Radiofone).

1. Upper 700 MHz Band and Lower 700 MHz Band.

In its comments, CTIA asks about the "implications for operations in the Upper Band C block and Lower Band C block" if they were located directly adjacent to each other, as under the

BOP.²⁹ The current rules would address potential interference between operations in the Upper 700 MHz C Block and the Lower 700 MHz C Block, even assuming implementation of the BOP.

Interface of Upper and Lower 700 MHz Bands at 746 MHz



Current rules contemplate low-power, low-site broadband operations, both FDD and TDD, in both the Upper 700 MHz band and the Lower 700 MHz band.³⁰ Thus, low-power, low-site operations in the Upper 700 MHz C Block would pose no greater risk of interference to the Lower 700 MHz C Block than already exists under current rules from adjacent operations in the Lower 700 MHz B Block. Similarly, low-power, low-site operations in the Lower 700 MHz C Block would pose no greater risk of interference to the Upper 700 MHz C Block than already exists under current rules from adjacent operations in the Upper 700 MHz D Block.

Current rules also contemplate high-power, high-site operations in the Lower 700 MHz band, subject to a power flux density (“PFD”) limitation.³¹ Both the Upper and Lower 700 MHz

²⁹ Comments of CTIA – The Wireless Association at 4.

³⁰ Base and fixed stations in the Upper 700 MHz commercial spectrum may not exceed 1 kW effective radiated power (“ERP”) at antenna heights of 305 meters height above average terrain, although higher antennas are permitted for lower power levels; higher power levels are prohibited. 47 C.F.R. § 27.50(b)(1-3). As a result, Upper 700 MHz commercial operations may be either low-power, low-site or low-power, high-site. In the Lower 700 MHz band, the same height flexibility applies for base and fixed stations below 1 kW ERP. 47 C.F.R. § 27.50(c)(1)(i). See *Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, Report and Order, 17 FCC Rcd 1022, ¶¶ 74 n.210 and 80 (2001) (“*Lower 700 MHz Report & Order*”).

³¹ In the Lower 700 MHz band, base and fixed stations are permitted to have power levels above 1 kW, not to exceed 50 kW ERP. Such high-power stations are not subject to specific height restrictions, but they must comply with a PFD limitation of 3,000 microwatts per square meter on the ground within 1 kilometer of the antenna. 47 C.F.R. §§ 27.50(c)(1), 27.55(b).

C Blocks are subject to the same out-of-band emissions limits under current rules.³² As a result, emissions from high-power, high-site Lower 700 MHz C Block operations would be limited in the Upper 700 MHz C Block to the same extent as low-power, low-site emissions from the adjacent Upper 700 MHz D Block. The higher power threshold in the Lower 700 MHz band would not result in increased near-far issues because of the PFD requirement that applies to such high-power transmissions.³³ Specifically, the PFD requirement would result in “PFD levels that are no greater than the PFD levels that would ordinarily occur from stations operating at” low-power.³⁴ As a result, the current combination of out-of-band emissions and PFD limits provides the Upper 700 MHz C Block similar protection from high-power, high-site transmissions from the Lower 700 MHz C Block as already exists with regard to low-power, low-site transmissions from operations in the Upper 700 MHz D Block. In addition, the level of protection provided by the Lower 700 MHz emissions and PFD limits is sufficient for Lower 700 MHz operations; it should also be sufficient for Upper 700 MHz operations.

2. Ericsson

Ericsson’s comments suggest, without support, that 2 MHz of separation between broadband and narrowband operations is required.³⁵ Ericsson has provided no technical support for its assertion, which is inconsistent with the current record. It is unclear why such a sub-optimal result should be considered.

Thus, Lower 700 MHz operations may also be high-power, high-site, as long as they comply with the PFD limitation.

³² 47 C.F.R. § 27.53(c) and (f).

³³ 47 C.F.R. §§ 27.50(c)(1)(ii), 27.55(b).

³⁴ *Lower 700 MHz Report & Order* ¶ 104.

³⁵ Comments of Ericsson Inc. at 14-15.

As noted above, in the *Public Safety 700 MHz Broadband* proceeding, all three proposals considered, including those from NPSTC and Motorola, are based on the determination that 1 MHz is a sufficient guard band to protect public safety narrowband operations from interference caused by adjacent public safety broadband operations.³⁶ Further, in adopting the current band plan, the Commission reached a similar conclusion, placing a 1 MHz A Block guard band between public safety narrowband operations and the commercial C Block.³⁷ This point—that 1 MHz is sufficient to separate broadband operations from narrowband and wideband operations—has been so thoroughly and widely accepted that it has become a given in the discussion over the configuration of the Upper 700 MHz band. As a result, the BOP provides for guard bands of 1 MHz.

In addition, implementation of Ericsson’s proposal would be extremely problematic, as any plan to use B Block spectrum to reconfigure the Upper 700 MHz band—including the BOP—is dependent upon the willingness of existing B Block licensees to cooperate. Access Spectrum’s and Pegasus’ support for using their B Block holdings to reconfigure the Upper 700 MHz band, including the public safety block, depends upon the acceptance of the BOP as a package, something NPSTC recognized in its comments when it noted in describing the BOP that:

The proposal reconfigures the public safety portion of the 700 MHz band, including relocating the narrowband voice channels, and allocating

³⁶ *Public Safety 700 MHz Broadband 8th NPRM* ¶¶ 15-21; see also letter from Vincent R. Stile, Chair, National Public Safety Telecommunications Council to Michael J. Wilhelm, FCC, WT Docket Nos. 05-157 and 96-86, at 2 (Feb. 6, 2006) (“[O]ur analysis determined it important to maintain a .975 MHz guard band channel between broadband and other operations.”); Motorola Oct. 27 Presentation at 30 (“A 1 MHz guardband is needed between a 1.25 MHz BB channel and the narrowband channels”).

³⁷ *Upper 700 MHz First R&O* ¶ 34 (establishing A Block of 1 MHz paired as guard band “in order to protect the immediately adjoining public safety licensees on Channels 63, 64, 68, and 69 from harmful interference.”).

additional spectrum to public safety operations in the 700 MHz band to promote broadband and wideband operations. In exchange, Access Spectrum/Pegasus seek greater flexibility, both administratively and technically, for their operations in the 700 MHz guard bands.³⁸

3. Commission Authority to Implement the BOP.

CICC is incorrect in suggesting that “increasing the size of the public safety band ... would require additional legislation ... because Congress only authorized 24 MHz of spectrum for public safety and 30 MHz for commercial systems.”³⁹ The statute provides that by January 1, 1998, the FCC shall allocate 24 MHz of Upper 700 MHz spectrum for public safety services and 36 MHz “for commercial use to be assigned by competitive bidding.”⁴⁰ The Commission has fully satisfied this statutory mandate with respect to the Upper 700 MHz band B Block. In particular, the Commission has: (1) reallocated 36 MHz of the Upper 700 MHz Band, including the 6 MHz of the A and B Blocks, in a manner that made this spectrum available for “commercial use;”⁴¹ and (2) completed an auction of the A and B Block spectrum.⁴²

Nothing in the BOP would run afoul of Congress’s direction. The BOP would reallocate only spectrum with regard to which the Commission has already met its obligations under the statute. Having met its statutory obligations under Section 337(a) with respect to the A and B Block spectrum, the Commission is now free to exercise its normal spectrum-management authority over the A and B Block spectrum, including the power to allocate or designate this

³⁸ NPSTC Comments at 4.

³⁹ Comments of the Critical Infrastructure Communications Coalition at 8 n.9.

⁴⁰ 47 U.S.C. § 337(a).

⁴¹ *See Reallocation of Television Channels 60-69, the 746-806 MHz Band*, Report and Order, 12 FCC Rcd 22953, ¶ 17 (1997).

⁴² “700 MHz Guard Bands Auction Closes; Winning Bidders Announced,” Public Notice, 15 FCC Rcd 18026 (Sept. 25, 2000) (DA 00-2154).

spectrum for public safety services.⁴³ Neither the express language of Section 337 nor its legislative history contains any indication that Congress intended to abridge the Commission's discretion to manage the spectrum at 746-806 MHz.⁴⁴ Absent clearly expressed congressional intention to the contrary it is well established that all provisions of a statute must be given force.⁴⁵ Section 337 thus must be interpreted in a manner that is consistent with the other sections of the Communications Act, including sections that grant the Commission broad authority to manage spectrum. Therefore, the Commission possesses authority to adopt and implement the BOP, including the reallocation of 3 MHz of B Block spectrum to Public Safety.

4. Gulf of Mexico B Block License

In its comments, Radiofone expresses the desire to retain its B Block license in the Gulf of Mexico. Contrary to Radiofone's suggestion, Access Spectrum and Pegasus have never suggested or implied that any B Block licenses would be "confiscate[d];"⁴⁶ rather, we have always contemplated that any B Block licenses relinquished would be turned in voluntarily and have specifically stated that the B Block licensees should receive fair compensation for any licenses they surrender.⁴⁷ In addition, we are working very closely with the other B Block licensees in the band and continue to be willing to work with Radiofone should it determine it would like to collaborate with us. We expect to reach a quick resolution that is fair and equitable

⁴³ See, e.g., 47 U.S.C. §§ 303(c), 316(a). In contrast, the Commission has *not* yet discharged its obligations under Section 337 with respect to the Upper 700 MHz C and D Blocks because this spectrum has not yet been assigned by competitive bidding as required by the statute.

⁴⁴ See Balanced Budget Act of 1997, Conference Report, H. Conf. Rep. 105-217 (July 30, 1997); Balanced Budget Act of 1997, Report of the Committee on the Budget, H.R. Rep. No. 105-149 (June 24, 1997).

⁴⁵ See, e.g., *FCC v. NextWave Personal Communications Inc.*, 537 U.S. 293, 304 (2003).

⁴⁶ Cf. Comments of Radiofone Nationwide PCS, L.L.C., at 2 ("Radiofone Comments").

⁴⁷ *BOP Comments* at 13 n.21; see Comments of Access Spectrum, LLC and Pegasus Communications Corporation at 19 (proposing spectrum "swap" as method of compensation).

for all of the parties. Thus, since it appears to be Radiofone's preference,⁴⁸ we endorse its desire to retain its current guard band license in the Gulf of Mexico and do not believe that it should cause any delay in adoption and implementation of the BOP, as we are unaware of any planned state or local public safety network operating in the Gulf of Mexico.

⁴⁸ Radiofone Comments at 2.

III. CONCLUSION

The adoption of the BOP and the Access Spectrum/Pegasus 700 MHz Commercial Plan are essential to a 4G auction and the deployment of state-of-the-art broadband networks for consumers, businesses and public safety entities. Achieving the tremendous benefits to Public Safety and commercial operations promised by the Access Spectrum/Pegasus plan requires all parties to focus now on resolving any remaining issues with regard to implementation, and we are committed to resolve the necessary issues. Along with other parties in this proceeding, we support a prompt auction of Upper 700 MHz commercial spectrum; the Commission therefore must act swiftly and in a coordinated fashion on all three of the 700 MHz proceedings.

Respectfully submitted,

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November 13, 2006

Certificate of Service

I, Ruth E. Holder, hereby certify that on this 13th day of November, 2006, I caused a true and correct copy of the foregoing Comments of Access Spectrum, LLC and Pegasus Communications Corporation to be mailed by electronic mail to:

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